

ROMEO1000 – 1kW FM TRANSMITTER

COMPACT VERSION



Prognostics

Analysis for predictive maintenance

Easy Care

Hot pluggable PSU - Easy to replace fans
Redundant power supply option

Controls

LCD display, Web server and SNMP

Integrated unique features

Micro SD card slot
FM, Satellite and Terrestrial receiver

Advanced Efficiency Boost

Efficiency over 75% with adaptive optimization

Digital Processing

Unique performances thanks to DDS
digital modulator

Stereo & Soft clipper

Always included

Audio processor

Full telemetry with 3G/4G connection

GENERAL SPECIFICATION

Output frequency range	87.5 to 108MHz in 1Hz steps
Output Power	1kW (tol. +0/-0.5dB)
Output connector	7-16 female
Spurious and harmonic suppression	Compliant with ETSI and FCC specification
Analog input	2x XLR female (Balanced; impedance 600Ω/10KΩ selectable)
MPX/SCA/RDS input	2x BNC female (Unbalanced; impedance 50Ω/10KΩ selectable)

Soft Clipper with band limitation

Included

Power consumption

Typ. 1,3kVA - Max. <1,5kVA

AEB - Advanced Efficiency Boost

Included

AC Input voltage and frequency

176-264Vac, 47 to 63Hz single phase (90-176Vac limited output power)

AC/DC Power Supplies

Single power supply hot pluggable from the front panel. Option double, fully redundant or for 90-176Vac operation @ nominal power

Operative temperature & fans

-5°C to +45°C @MSL. N.2 fans on the rear panel. Option for redundant

Maximum operative altitude

3000m ASL. For higher altitudes please contact our sales dept.

Maximum operative humidity

95% non-condensing

Housing

Rack drawer 19" 3U, depth 45cm

Weight

<18Kg

SOFTWARE OPTIONS

S-AM-UN	Audio monitor for input or on-air signal + test tone generator	Included in S-FULL-UN
S-SD-UN	Micro SD card slot	
S-AES-UN	Digital AES/EBU & AES192 (MPX over AES) inputs	
S-FMRX-UN	FM receiver input (for regenerative FM repeater/ translator)	
S-SWI-UN	Automatic input switching (n.3 MPX profiles – audio/ RDS)	
S-RDS-UN	Static RDS coder	
S-IP-UN	IP input (Icecast2 streaming & AES67)	
S-DMPX-UN	Digital MPX over TS & Digital MPX over IP in/out	Only with H-AP
S-RDS+-UN	Dynamic RDS	
S-ISO-UN	SFN/ Isofrequency operation	
S-AP-DEL	Delossifier	
S-AP-ARDS	Advanced RDS	

HARDWARE OPTIONS

H-SAT	Embedded Satellite receiver demodulator. DVB-S/S2 (L-band input) Low Symbol Rate with loop
H-SATDTT	Embedded Satellite and Terrestrial receiver demodulator. DVB-S/S2 (L-band input) and DVB-T/T2 and ISDB-T (VHF/UHF band input)
H-3G; H-4G	2G/3G or 3G/4G modem router for remote connection/telemetry and SMS
H-I/O	GPIO interface with n.3 isolated clean contact out, n.4 optoisolated in, n.4 analog out (0 to 5V), mini UPS for remote control, RF filter for router
H-AP-PRO	Integrated audio processor card with professional software license
H-SATDTT2	Second Redundant Embedded Satellite and/or Terrestrial receiver demodulator with seamless switching
H-CAM	CAM Slot (Common Interface Module)
H-ASI	ASI T.S. input (or output) interface
H-REF	10MHz and 1pps inputs
H-GNS	High stability reference oscillator GNSS (GPS + GLONASS) locked, oven clock 10MHz + 1pps outputs
H-AGNS	GPS/GLONASS receiving antenna (gain 26dB typ.) + 15 meters cable
H-PSU	Redundant 1600W power supply unit
H-FAN	Fully redundant fans

The software-based audio processor can be integrated in any Romeo Transmitter, from low and medium compact versions to high power line. **H-AP-PRO Audio Processor** offers outstanding audio quality and comes with many unique features.



FM Composite Clipper

Up to 140% audio level at 100% modulation gives 2-3 dB extra headroom for highs. Improve your audio, being the loudest and cleanest station on the dial!

Stereo & RDS Coder

Built-in stereo and RDS encoder RT+

Advanced Dynamics & EQ

Increases the dynamics for music that lacks dynamics. Adjusts the spectrum without compression, making it possible to generate a very consistent sound without sounding compressed

Dehummer

Improves the sound of MPEG2/MP3 style lossy compressed files, removing unwanted constant sounds, such as a 50/60 Hz hum from bad cables

Better FM reception

Improves stereo reception area up to 30Km

Declipper & Natural Dynamics

Repairs clipped audio, removes distortion Restores Natural Dynamics

Delossifier

Improves the sound quality of MPEG2/MP3 style lossy compressed files

All specifications contained in this document may be changed without prior notice